REMARKS

Claims 1-3, 5-18, 20-25, 27-30, and 32-39 are currently pending and under consideration. Claims 4, 19, and 31 have been canceled herein. Claims 1, 5, 6, 18, 27, and 30 have been amended herein. A clean version of all pending claims is found at pages 2-8 of this Reply. A version with markings to show the amendments made is found at pages 18-19 of this Reply.

It is respectfully submitted that the finality of the Office Action dated May 9, 2002 should be withdrawn. Accordingly to §706.07(a) of the MPEP, "a second or any subsequent action on the merits in an application will not be made final if it includes a rejection, on newly cited art, of any claim not amended by applicant or patent owner in spite of the fact that other claims may have been amended to require newly cited art." Claims 1, 18, and 30 were rejected on newly cited art in the Office Action dated May 9, 2002; however, no amendments had been made to these claims during the prosecution of the subject application. In addition, Chamberlin *et al.* appears in neither the Applicant's "Information Disclosure Statement" nor in the Examiner's "Notice of References Cited." Accordingly, it is submitted that the finality of the Office Action was premature and withdrawal of the finality is requested.

Favorable reconsideration of the subject application is respectfully requested in view of the amendments and following comments.

Rejection of Claims 1-25 and 27-39 Under 35 U.S.C. 103(a)

Claims 1-25 and 27-39 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ogushi *et al.* (EP 0822473 P.N.) in view of Chamberlin *et al.* (P.N. 4,703,325). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons.

Claims 1-3, 5-9

Claim 1 has been amended herein to recite "wherein the component communicates component health information to the first party from the location site of the second party." Neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest communicating component health information, as it is defined in the specification of the present application. Component health information includes not only component failure information, but also, component degradation information and component calibration information. Thus, Applicant is concerned with

diagnosing components for possible failure or faults early in order to avoid problems associated with component failure. In contrast, Ogushi *et al.* is only concerned with detecting trouble information for industrial equipment after it has occurred and providing centralized management of such information. Accordingly, it is submitted that the health information of claim 1 is not necessarily 'trouble information'. For example, machine components can begin to degrade while still producing products that are in tolerance. Thus, maintenance would not be needed at this point; however, in accordance with claim 1, communicating status information to the first party could put the first party on notice that maintenance may be needed in the future. Ogushi *et al.* does not provide for such preventative measures. Rather, Ogushi *et al.* teaches:

> In this system, when a trouble has occurred in one of the series of production equipments on the production line, the operation of the production line stops. Remote maintenance is received from the vendor for the equipment in trouble through the internet 200 to immediately cope with the trouble, thereby minimizing the stop period of the production line (col. 8, lines 46-52).

Thus, Ogushi *et al.* teaches a reactive system for reporting machine failures, while the subject application teaches a proactive system for preventing machine failures.

Regarding claim 7, neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest wherein the component communicates version information to the server site of the first party from the location site of the second party, as recited in claim 7. In the Office Action dated May 9, 2002, the Examiner relies on col. 5, lines 34-43 of Ogushi *et al.* to teach this limitation. However, version information is not mentioned in column 5, lines 34-43. Rather, this section is directed to reporting the fact of occurrence of the trouble, contents of the trouble, the presence or absence of the countermeasure, and the current trouble state. Thus, it is submitted that neither Ogushi *et al.* nor Chamberlin *et al.* provide any independent suggestion of communicating version information without the using the subject application as a guide.

Regarding claim 8, as neither Ogushi *et al.* nor Chamberlin *et al.* mention version information, neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest sending version upgrade information after version information has been sent, as required by claim 8.

For the aforementioned reasons, it is submitted that the combination of Ogushi *et al.* and Chamberlin *et al.* do not make claim 1 or claims 2-3 and 5-9, which depend therefrom, obvious.

Claim 4 has been canceled herein. Accordingly, withdrawal of this rejection and allowance of claims 1-3 and 5-9 are respectfully requested.

Claims 10-17

Neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest each component having a different IP address, the website matching component information residing at the vendor's website with the IP address of the component and providing this information to the vendor, as recited in claim 10. In the Office Action dated May 9, 2002, the Examiner contends that because Ogushi *et al.* employs a TCP/IP protocol, each component inherently has an IP address. Applicant respectfully disagrees. As can be seen from Fig. 1 of Ogushi *et al.*, each of the plurality of industrial machines 106 communicates with a host computer 107 over a LAN (intranet). The host computer 107 then employs a TCP/IP protocol to communicate with a vendor 101 over the Internet 105. This structure is further described in column 3, lines 29-48, which make it clear that only the host computer in each of the factories and the vendor computer use TCP/IP (column 3, lines 45-48). Accordingly, Ogushi *et al.* does not teach or suggest each component having a different IP address, as required by claim 10. Chamberlin *et al.* does not make up for the aforementioned deficiencies of Ogushi *et al.*

Regarding claim 16, as previously discussed with respect to claim 7, neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest wherein the status information includes the component version information, such that the website can communicate version upgrade information to at least one of the plurality of components in response to component information. Rather, both Ogushi *et al.* and Chamberlin *et al.* are silent on communicating component version information.

For the aforementioned reasons, it is submitted that the combination of Ogushi *et al.* and Chamberlin *et al.* do not make claim 10 or claims 11-17, which depend therefrom, obvious. Accordingly, withdrawal of this rejection and allowance of claims 10-17 are respectfully requested.

Claims 18-25

Claim 18 has been amended herein to recite wherein the status information includes an IP address associated with the component and matching the customer identification information and

component location information corresponding to the IP address included in the status information. Neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest this limitation. Rather, as discussed above with respect to claim 10, neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest each component having an IP address associated with the component. The Examiner relies on col. 3, lines 45-48 and col. 4, lines 40-47 of Ogushi *et al.* However, col. 3, lines 45-48 teach that communication within the factories occurs over a LAN and communication between the factories 102 to 104, specifically, the host computers, and the vendor 101 employs a TCP/IP protocol. Thus, because the communication between the equipment and the host computers within the factories occurs over a LAN, the equipment does not have a different IP address associated with each piece of equipment.

Col. 4, lines 40-47 teach that the host computer 107 sends status information directly to the vendor 101. Such status information contains the model of the equipment in trouble, the serial number, the error code, and the trouble occurrence time. Ogushi *et al.* does not mention an IP address being included in the status information. Further, this section of Ogushi *et al.* does not teach or suggest searching a database located on the server of a vendor for customer identification information and component location information and matching such information corresponding to the IP address included in the status information. Chamberlin *et al.* does not make up for the aforementioned deficiencies of Ogushi *et al.*

Regarding claim 24, as previously discussed with respect to claims 7 and 16, neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest wherein the status information includes version information of the at least one component. Rather, both Ogushi *et al.* and Chamberlin *et al.* are silent on communicating component version information.

For the aforementioned reasons, it is submitted that the combination of Ogushi *et al.* and Chamberlin *et al.* do not make claim 18 or claims 20-25, which depend therefrom, obvious. Claim 19 has been canceled herein. Accordingly, withdrawal of this rejection and allowance of claims 18 and 20-25 are respectfully requested.

Claims 27-28

Claim 27 has been amended herein to recite "a signal carrier wave adapted to be transmitted between at least one site of a customer and a site of a vendor, comprising: a data

signal within the carrier wave, the data signal having a periodic status message provided by a factory automation component, the status message including health information relating to the factory automation component, the factory automation component having an IP address." Thus, the amended propagated signal carrier wave claim recites a computer data signal embodied in a carrier wave and is recognized as an article of manufacture as it recites a specific article of manufacture that is embodied on a computer-readable medium (the carrier wave) (MPEP §2106).

Neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest a status message including health information relating to the factory automation component, as defined in the specification of the application. Rather, both cited references are only directed to sending trouble information or error codes. Further, neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest the factory automation component having an IP address. Rather, IP addresses associated with each factory automation component is absent from both references. Accordingly, the combination of Ogushi *et al.* and Chamberlin *et al.* do not make obvious claim 27. Withdrawal of this rejection and allowance of claim 27 and claim 28, which depends therefrom, are respectfully requested.

Claim 29

Neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest means for matching a factory automated component location and customer identification information with status information provided by the factory automated component, as required by claim 29. Ogushi *et al.* describes receiving information about the equipment by a host computer 108 on the vendor side 101 and looking up maintenance information representing the operating state and the maintenance state "from computers in other departments of the vendor 101, e.g., computers 110 in the manufacturing department and the department of development in addition to the department of maintenance. The maintenance information can be fed back to the manufacturing department and the department of development" (col. 3, line 49 - col. 4, line 2).

In the subject application, means for matching a factory automated component location and customer identification information with status information includes comparing the component information received against a database to recognize ways to improve system efficiency. Thus, looking up maintenance information from a plurality of sources, as described in Ogushi *et al.* is not necessary. Chamberlin *et al.* does not make up for the deficiencies of

Ogushi *et al.* Accordingly, the combination of Ogushi *et al.* and Chamberlin *et al.* do not make obvious claim 29. Withdrawal of this rejection and allowance of claim 29 is respectfully requested.

Claim 30-33

Claim 30 has been amended herein to recite "wherein the status information includes health information related to the health of the component." Neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest communicating component health information, as it is defined in the specification of the present application. Component health information includes not only component failure information, but also, component degradation information and component calibration information. Thus, Applicant is concerned with diagnosing components for possible failure or faults early in order to avoid problems associated with component failure. In contrast, Ogushi *et al.* is only concerned with detecting trouble information for industrial equipment after it has occurred and providing centralized management of such information. Accordingly, it is submitted that the health information of claim 1 is not necessarily 'trouble information'. For example, machine components can begin to degrade while still producing products that are in tolerance. Thus, maintenance would not be needed at this point; however, in accordance with claim 1, communicating status information to the first party could put the first party on notice that maintenance may be needed in the future. Ogushi *et al.* does not provide for such preventative measures. Rather, Ogushi *et al.* teaches:

> In this system, when a trouble has occurred in one of the series of production equipments on the production line, the operation of the production line stops. Remote maintenance is received from the vendor for the equipment in trouble through the internet 200 to immediately cope with the trouble, thereby minimizing the stop period of the production line (col. 8, lines 46-52).

Thus, Ogushi *et al.* teaches a reactive system for reporting machine failures, while the subject application teaches a proactive system for preventing machine failures.

Regarding claim 32, as previously discussed with respect to claims 7, 16, and 24, neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest wherein the status information includes the component version information, such that the website can communicate version upgrade

information to at least one of the plurality of components in response to component information. Rather, both Ogushi *et al.* and Chamberlin *et al.* are silent on communicating component version information.

Regarding claim 33, neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest wherein the component includes an enabled mode for receiving communication from the at least one computer and a disabled mode blocking communication from at least one computer. The Examiner contends that the vendor and factory computers have enabled communication only when both computers are turned on; therefore if one computer is turned off, communication is disabled and blocked. However, it is submitted that blocking communication and turning off the computer is not equivalent. For example, communication can be blocked while the computer is still otherwise functioning normally. Chamberlin *et al.* does not make up for the aforementioned deficiencies of Ogushi *et al.*

For the aforementioned reasons, it is submitted that the combination of Ogushi *et al.* and Chamberlin *et al.* do not make claim 30 or claims 32-33, which depend therefrom, obvious. Claim 31 have been canceled herein. Accordingly, withdrawal of this rejection and allowance of claims 30 and 32-33 are respectfully requested.

Claims 34-38

Neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest wherein the server is configured to match component status information to customer information and component location information of the one or more factory automated components and output this information to the vendor. Rather, as described above, Ogushi *et al.* teaches a host computer on the vendor side receiving information from a piece of equipment and looking up maintenance information from a plurality of computers at the vendor site. Ogushi *et al.* does not teach matching information. The system claimed in claim 34, matches received component information against a database and is able to recognize any actions that can be taken to improve system efficiency. For example, as claimed in claim 35, the system can recognize whether product upgrades are available; and/or as claim in claim 38, the system can recognize whether maintenance should be scheduled or that there might be a safety issue or application solution that

might be helpful to the customer. Chamberlin *et al.* does not make up for the aforementioned deficiencies of Ogushi *et al.*

Accordingly, the combination of Ogushi *et al.* and Chamberlin *et al.* does not make obvious claims 33-38. Withdrawal of this rejection and allowance of claims 33-38 are respectfully requested.

Claim 39

Neither Ogushi *et al.* nor Chamberlin *et al.* teach or suggest means for searching a database located on the server of the vendor for customer identification information and component location information corresponding to the status information of the at least one component. As discussed above, the means for searching a database includes comparing received component information with component information contained in the database. Ogushi *et al.* only describes employing a database to look up trouble information. Further, in Ogushi *et al.* the database only contains trouble information that has been reported in the past. If a machine has not reported trouble information in the past, the database is blank. In the present invention, searching the database will provide information such as whether product upgrades are available, whether maintenance should be scheduled, or that there might be a safety issue or application solution that might be helpful to the customer. Chamberlin *et al.* does not make up for the deficiencies of Ogushi *et al.*

Accordingly, the combination of Ogushi *et al.* and Chamberlin *et al.* does not make obvious claim 39. Withdrawal of this rejection and allowance of claim 39 is respectfully requested.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above amendments and comments.

If any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please cancel claims 4, 19, and 31 without prejudice or disclaimer.

Please amend the claims as follows:

1. (Amended) A factory automation system for providing status information on at least one factory automation component, comprising:

a factory automation component distributed by a first party;

the component residing at a site location of a second party; and

the component periodically communicating component status information to the first party wherein the first party compiles the status information from the component and utilizes the status information to the benefit of the second party, and wherein the component communicates component health information to the first party from the location site of the second party.

5. (Amended) The system of claim [4] 1, wherein the health information is selected from the group consisting of a component failure, a component degradation and a component out of calibration.

6. (Amended) The system of claim [4] 1, wherein the site of the first party communicates patch information to the component in response to health information from the component.

18. (Amended) A method of providing status information to a vendor on at least one factory automation component sold by the vendor to at least one customer, comprising [the steps of]:

locating at least one component at a site of at least one customer;

connecting the at least one component to a network connected to a server of the vendor;

communicating periodically component status information from the at least one component to the server of the vendor, wherein the status information includes an IP address associated with the at least one component;

searching a database located on the server of the vendor for customer identification information and component location information corresponding to the status information of the at least one component;

matching the customer identification information and component location information corresponding to the IP address included in the status information; and

outputting the customer identification information and component status and location information to the vendor.

27. (Twice Amended) A [computer memory] signal carrier wave adapted to be transmitted between at least one site of a customer and a site of a vendor, comprising:

a data signal within the carrier wave, the data signal having a periodic status message provided by a factory automation component, the status message including health information relating to the factory automation component, the factory automation component having an IP address.

30. (Amended) A factory automated component, comprising:

a processor;

a memory coupled to the processor; and

a network interface coupled to the processor for transmitting and receiving data with at least one remote computer system, wherein the factory component communicates status information periodically to the at least one remote computer system, and wherein the status information includes version information related to the version of the component.